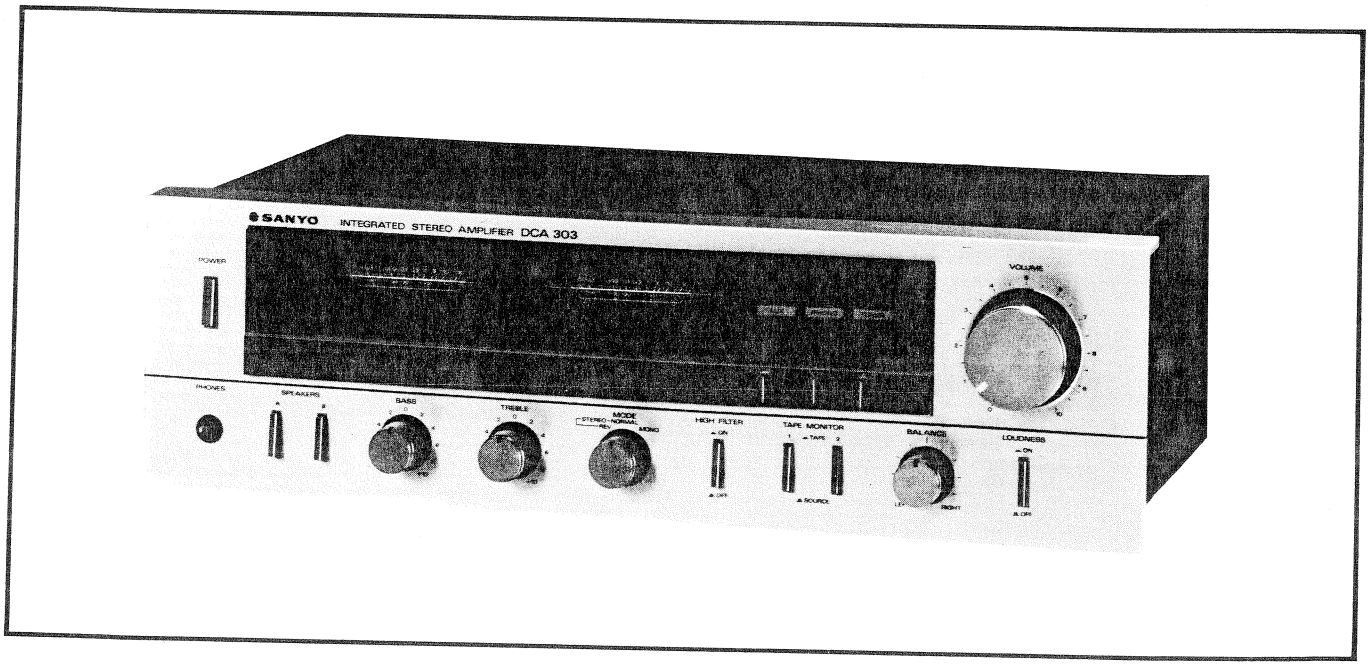
SERVICE MANUAL

SANYO

STEREO INTEGRATED AMPLIFIER

DCA 303 (EUROPE)



SPECIFICATIONS

POWER AMPLIFIER SECTION

Power	30 watts per channel RMS minimum continuous power, with maximum total harmonic distortion of 0.05 % at 8 ohms.
Power Bandwidth	20 Hz – 20 kHz

PRE AMPLIFIER SECTION

Frequency Response	
Phono (30 Hz – 15 kHz)	±0.5 dB
Aux. (20 Hz – 20 kHz)	±0.5 dB
Tape 1,2 (20 Hz – 20 kHz)	±0.5 dB
Input Sensitivity/Impedance	
Phono	2.5 mV/50 kohms
Tuner	150 mV/30 kohms
Auxiliary	150 mV/30 kohms
Tape 1,2	150 mV/30 kohms
Tone Controls	
Bass (100 Hz)	±10 dB
Treble (10 kHz)	±10 dB
Loudness Control	100 Hz +8 dB
	10 kHz +4 dB
High Filter (6 dB/Oct, 5 kHz)	–6 dB
Output Level	
Tape Rec.	150 mV

GENERAL SECTION

Power Source	AC: 110/220 V 50 Hz
Power Consumption	160 W
Dimensions (W) x (D) x (H)	420 x 220 x 120 mm
Weight	5.3 kg (approx.)

–Specifications are subject to change without notice.–

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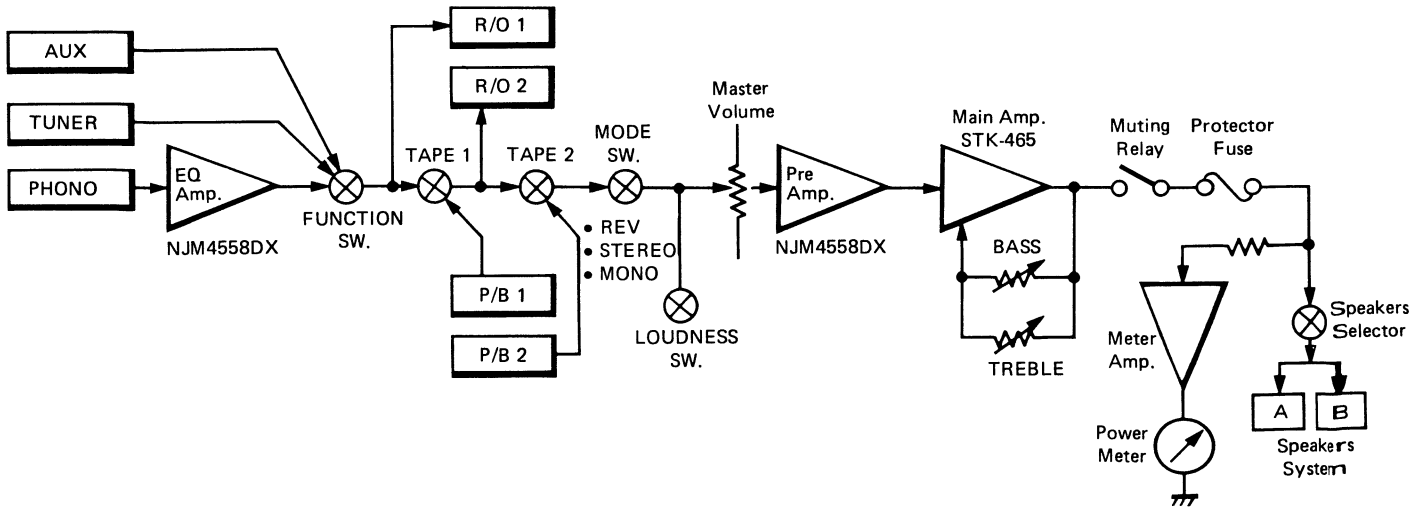
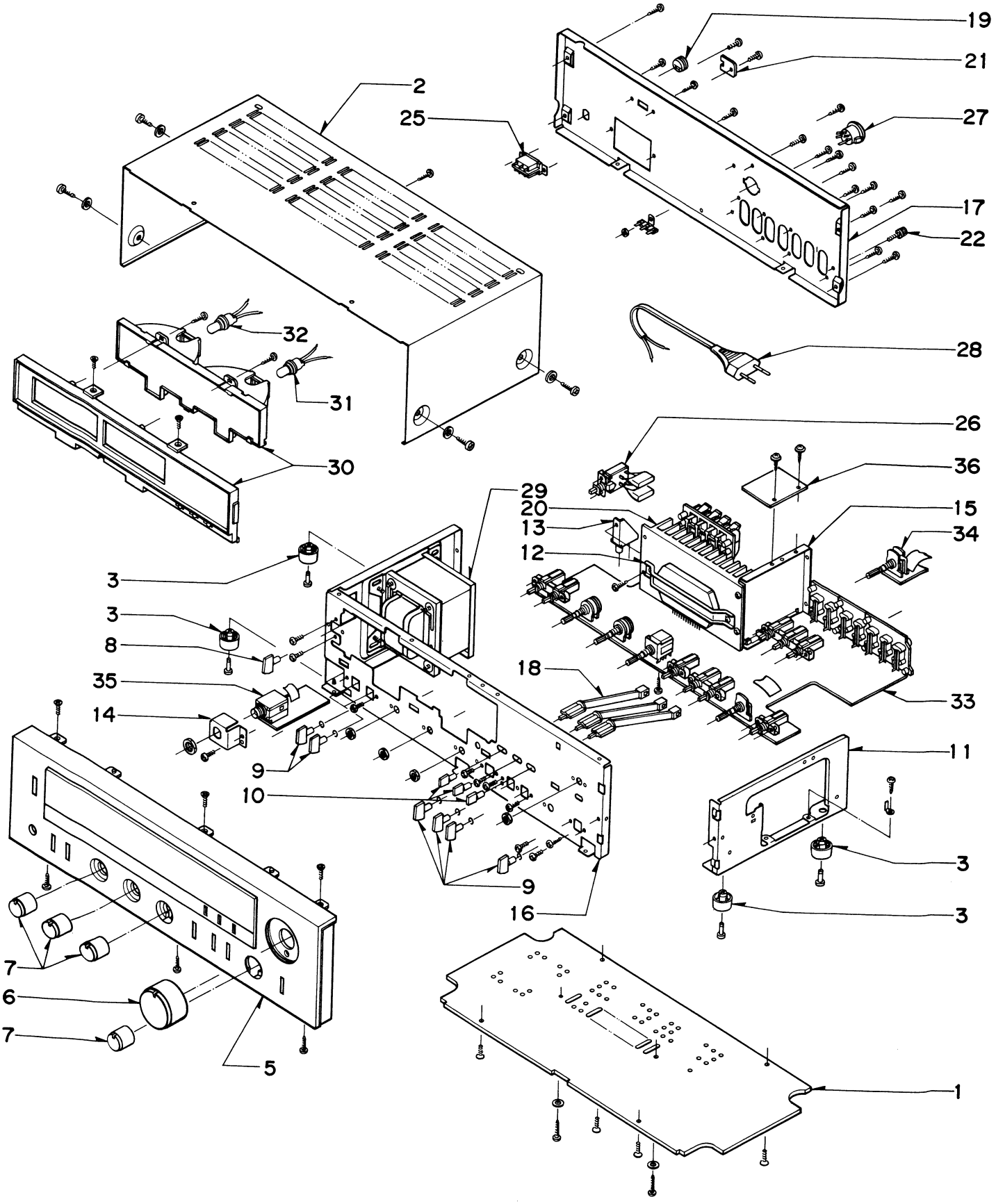
FUNCTIONAL BLOCK DIAGRAM



EXPLODED VIEW OF CABINET AND CHASSIS



PARTS LIST

PACKING PARTS LIST

Ref. No.	Parts Number	Description
	131 6 1139 83113	Box Corrugate-EXP
	131 6 2119 02131	Bag Polyethylene-EXP
	131 6 3009 30370	Pad

ACCESSORIES PARTS LIST

Ref. No.	Parts Number	Description
	131 6 4119 84602	Explanatory Booklet

CABINET PARTS LIST

Ref. No.	Parts Number	Description
1	131 2 1105 25300	Plate Bottom
2	131 2 1410 23800	Cover
3	131 2 1801 14600	Leg

APPEARANCE PARTS LIST

Ref. No.	Parts Number	Description
5	131 0 1016 35704	Panel Decorate Assy
	131 2 1110 27700	Plate Decorate
	131 2 1202 17400	Escutcheon Dial
	131 2 1203 49404	Panel Control
	131 2 1205 24500	Decorate Plate Dial
	131 2 6113 37700	Shelter (Push Knob)
	131 2 6113 37800	Shelter (Push Knob)
	131 2 6113 37900	Shelter
6	131 2 1601 63100	Knob (Volume)
7	131 2 1601 63200	Knob (Tone, Balance)
8	131 2 1601 63300	Knob (Power Switch)
9	131 2 1601 63400	Knob (Push)
10	131 2 1601 63500	Knob (Function)

CHASSIS PARTS LIST

Ref. No.		Parts Number	Description
11	*	131 2 3101 71100	Metal Mount (Front Panel)
12	*	131 2 3101 71300	Metal Mount (IC)
13	*	131 2 3101 71400	Metal Mount
14	*	131 2 3101 72700	Metal Mount (Phone)
15	*	131 2 3202 13500	Metal Reinforce
16	*	131 2 3305 29400	Panel Front
17	*	131 2 3306 31509	Panel Rear
18		131 2 4219 13800	Shaft
19		131 2 6111 14200	Bushing (Line Cord)
20		131 2 6201 28100	Plate Heat Sink
21		131 2 7104 00500	Plate Pad Switch
22		131 2 4201 17800	Screw (GND)

ELECTRICAL PARTS LIST

Ref. No.		Parts Number	Description
25	⚠	4 2312 01020	Switch Slide
26	⚠	4 2312 04520	Switch Push Power
27		4 2352 00770	DIN Socket 5P
28	⚠	4 2432 00140	Power Cord
29	⚠	4 2512 12220	Power Transformer
30		4 5112 00490	Meter Assy
31		4 6129 20771	Meter Lamp 8 V 300 mA (Right)
32		4 6129 20775	Meter Lamp 8 V 300 mA (Left)
33	*	131 0 4001 05422	AF, AMP P.C.B. Assy
34	*	131 0 4001 05430	Volume P.C.B. Assy
35	*	131 0 4001 05440	Headphone P.C.B. Assy
36	*	131 0 4001 05510	Fuse P.C.B. Assy
C01,02		C2EHRM103A	Metallized Paper 0.01 μF 250V ±20%
R01,02		R2EDPJ334A	Carbon 330k 1/4W ±5%

*—Not a service part.

NOTES:
1. Part orders must contain Model Number, Part Number and Description.
2. Ordering quantity of screws and/or resistors must be multiple of 10 pcs.

PRODUCT SAFETY NOTICE

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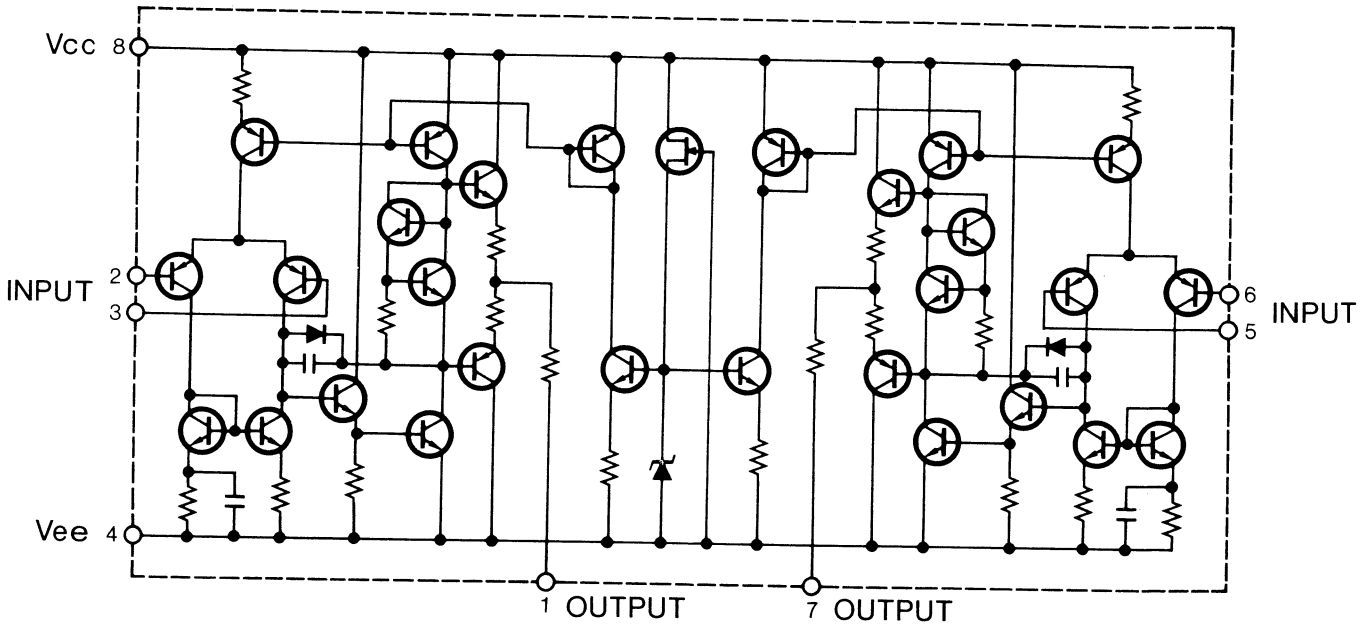
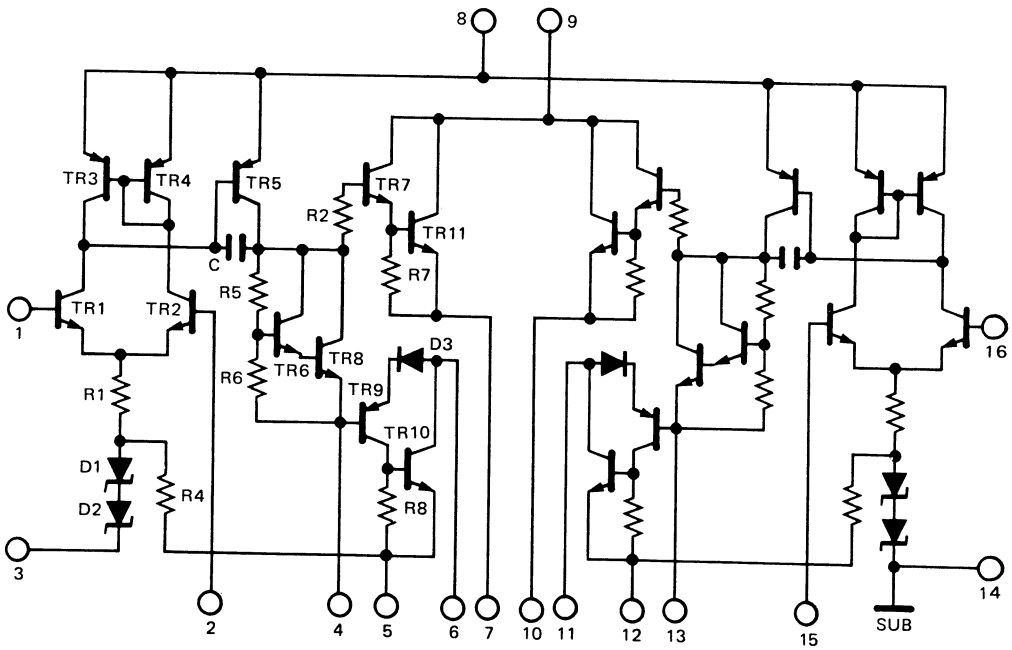
EQ AMP IC NJM4558 EQUIVALENT CIRCUIT



POWER AMP IC STK-465 EQUIVALENT CIRCUIT



PARTS LIST

AF, AMP P.C.B. Assy
131 0 4001 05422

Ref. No.	Parts Number	Description
VR03,04	4 2222 01650	VR 100k-Cx2 (Bass, Treble)
VR01	4 2222 01670	VR 200k-Wx1 (Balance)
	4 2312 04220	Push Switch 1key (Loucon, Filter)
	4 2312 04270	Push Switch 3key (Function)
	4 2312 04280	Push Switch 2key (Tape)
	4 2312 04510	Push Switch 2key (Speaker Selector)
	4 2312 04640	Rotary Switch 2-3 (Mode)
	4 2322 00160	Relay
⚠	4 2349 20580	Fuse T3.15 A
	4 2352 00200	Fuse Clip
	4 2359 23180	Socket 4P (Tape)
	4 2359 23220	Socket 6P (Input)
	4 2372 00760	Speaker Terminal

CAPACITORS

C01,02	C1HCZK271BPA	Ceramic 270 pF 50V ±10%
C03,04	C1CRY-106APA	Electrolytic 10 μF 16V
C05,06	C1ARY-107APA	Electrolytic 100 μF 10V
C07,08	C1HFYK123APA	Mylar 0.012 μF 50V ±10%
C09,10	C1HFYK472APA	Mylar 0.0047 μF 50V ±10%
C11,12	C1HRY-104LPA	Electrolytic 0.1 μF 50V
C13,14	C1HCZK471BPA	Ceramic 470 pF 50V ±10%
C15,16	C1HFYK563APA	Mylar 0.056 μF 50V ±10%
C17,18	C1HRY-105APA	Electrolytic 1 μF 50V
C19,20	C1ARY-107APA	Electrolytic 100 μF 10V
C23,24	C1HRY-105APA	Electrolytic 1 μF 50V
C25,26	C1HFYK273APA	Mylar 0.027 μF 50V ±10%
C27,28	C1HRY-105APA	Electrolytic 1 μF 50V
C29,30	C1HCZK271BPA	Ceramic 270 pF 50V ±10%
C31,32	C1HCZK4R7SPA	Ceramic 4.7 pF 50V ±10%
C33,34	C1HRY-476APA	Electrolytic 47 μF 50V
C35,36	C1ARY-107APA	Electrolytic 100 μF 10V
C37,38	C1CRY-106APA	Electrolytic 10 μF 16V
39,40		
C41,42	C1HFYK222APA	Mylar 0.0022 μF 50V ±10%
C43,44	C1HFYK273APA	Mylar 0.027 μF 50V ±10%
C45,46	C1HFRK224A	Mylar 0.22 μF 50V ±10%
C47,48	C1HFYK333APA	Mylar 0.033 μF 50V ±10%
C49,50	C1HYYZ473APA	Ceramic 0.047 μF 50V +80,−20%
C51,52	C1HFYK103APA	Mylar 0.01 μF 50V ±10%
C53	C1VRE-227A	Electrolytic 220 μF 35V
C54	C1ARY-227APA	Electrolytic 220 μF 10V
C55	4 2232 00430	Ceramic 0.01 μFx2 250V
C56	C1HRY-476APA	Electrolytic 47 μF 50V
C57,58	4 2232 00381	Electrolytic 6800 μF 50V
C59	4 2232 00430	Ceramic 0.01 μFx2 250V
C60,61	C1HRY-106APA	Electrolytic 10 μF 50V
C62	C1HYYZ473APA	Ceramic 0.047 μF 50V +80,−20%

Ref. No.	Parts Number	Description
	SEMICONDUCTORS	
D01,02	DNN-RD15E	Diode, RD15E
D03 ⚠	DDD-S4VB20---2	Bridge Diode, S4VB20
D04,05	DGG-1N4002	Diode, 1N4002
D06	205 5 9040 44210	Diode, DS-442
IC01,02	IJJ-NJM4558DX	IC, NJM4558D X
IC03	206 5 5010 46520	IC, Power STK465
IC04	ITT-TA7318P	IC, TA7318P
L01,02	4 2532 00180	RF Filter
Q01	203 5 5000 53660	TR 2SC536 F, G
Q02	203 5 7252 27450	TR 2SC2274 E, F

RESISTORS

R01,02	R2EDZJ271APA	Carbon	270	1/4W	±5%
R03,04	R2EDZJ473APA	Carbon	47k	1/4W	±5%
R05,06	R2EDZJ331APA	Carbon	330	1/4W	±5%
R07,08	R2EDZJ224APA	Carbon	220k	1/4W	±5%
R09,10	R2EDZJ153APA	Carbon	15k	1/4W	±5%
R11,12	R2EDZJ104APA	Carbon	100k	1/4W	±5%
R13,14	R2EDZJ122APA	Carbon	1.2k	1/4W	±5%
R15,16	R2EDZJ272APA	Carbon	2.7k	1/4W	±5%
R17,18	R2EDZJ822APA	Carbon	8.2k	1/4W	±5%
R19,20	R2EDZJ102APA	Carbon	1k	1/4W	±5%
R21,22	R2EDZJ104APA	Carbon	100k	1/4W	±5%
R23,24	R2EDZJ473APA	Carbon	47k	1/4W	±5%
R25,26	R2EDZJ683APA	Carbon	68k	1/4W	±5%
R27,28	R2EDZJ182APA	Carbon	1.8k	1/4W	±5%
R29,30	R2EDZJ222APA	Carbon	2.2k	1/4W	±5%
R31,32	R2EDZJ563APA	Carbon	56k	1/4W	±5%
R33,34	R2EDZJ102APA	Carbon	1k	1/4W	±5%
R35,36	R2HXBJ332A	Oxide Metal Film	3.3k		±5%
R37,38	R2EDZJ182APA	Carbon	1.8k	1/4W	±5%
R39,40	R2EDZJ563APA	Carbon	56k	1/4W	±5%
R41,42	R2EDZJ392APA	Carbon	3.9k	1/4W	±5%
R43,44	4 2212 00140	Metal Plate		0.15 2W	
R45,46	R2EDZJ472APA	Carbon	4.7k	1/4W	±5%
R47,48	R2HXBJ100A	Oxide Metal Film	10	1/2W	±5%
49,50					
R51,52	R2EDZJ103APA	Carbon	10k	1/4W	±5%
R53,54	R2EDZJ823APA	Carbon	82k	1/4W	±5%
R55,56	R2EDZJ182APA	Carbon	1.8k	1/4W	±5%
R57,58	R2EDZJ561APA	Carbon	560	1/4W	±5%
R59,60	R2EDZJ122APA	Carbon	1.2k	1/4W	±5%
R61,62	R2EDZJ331APA	Carbon	330	1/4W	±5%
R63,64	R2EDZJ153APA	Carbon	15k	1/4W	±5%
R69,70	R3AXBJ222A	Oxide Metal Film	2.2k	1W	±5%
R71,72	R3AXBJ102A	Oxide Metal Film	1k	1W	±5%
R73	R2HZPK101A	Fuse	100	1/2W	±10%
R74	R2EDZJ333APA	Carbon	33k	1/4W	±5%
R75	R2EDZJ124APA	Carbon	120k	1/4W	±5%
R76	R2HZPK560A	Fuse	56	1/2W	±10%

PARTS LIST

VOLUME P.C.B. Assy
131 0 4001 05430

Ref. No.	Parts Number	Description
VR02	4 2222 01880	VR 100k-Bx2

HEADPHONE P.C.B. Assy
131 0 4001 05440

Ref. No.	Parts Number	Description
	4 2352 00190	Headphone Jack
	RESISTORS	
R65,66	R3AXBJ331A	Oxide Metal Film 330 1W ±5%

FUSE P.C.B. Assy
131 0 4001 05510

Ref. No.	Parts Number	Description
⚠	4 2349 20580	Fuse T3.15 A
⚠	4 2349 20590	Fuse T4.0 A
	4 2352 00200	Fuse Clip

NOTES:
1. Part orders must contain Model Number, Part Number and Description.
2. Ordering quantity of screws and/or resistors must be multiple of 10 pcs.

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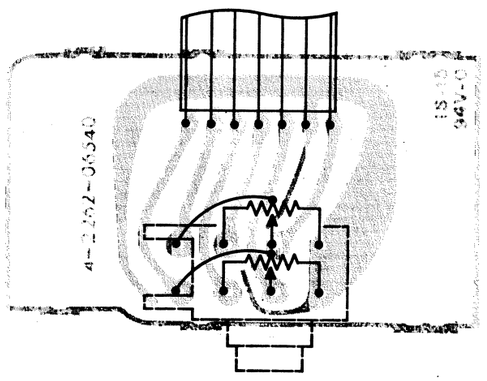
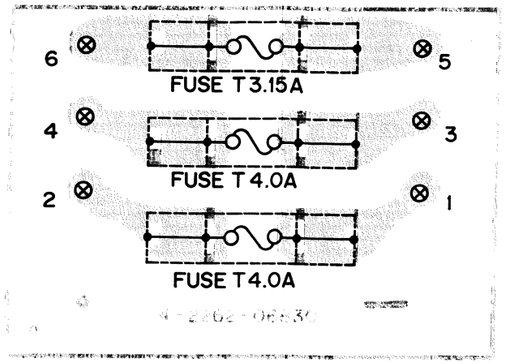
VOLUME P.C.BOARD
(BOTTOM VIEW)

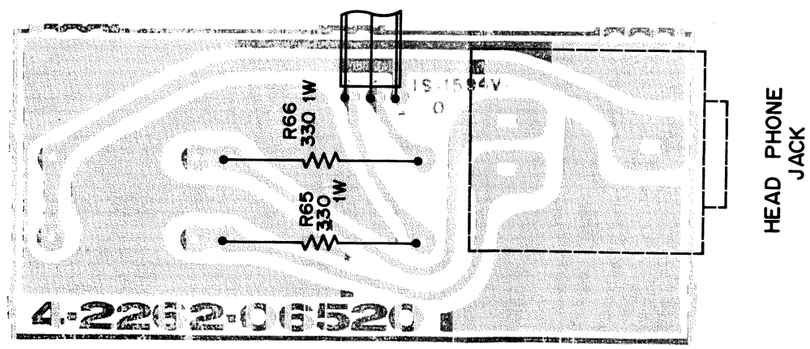


MASTER VR
VR02
100KBx2

FUSE P.C.BOARD
(BOTTOM VIEW)

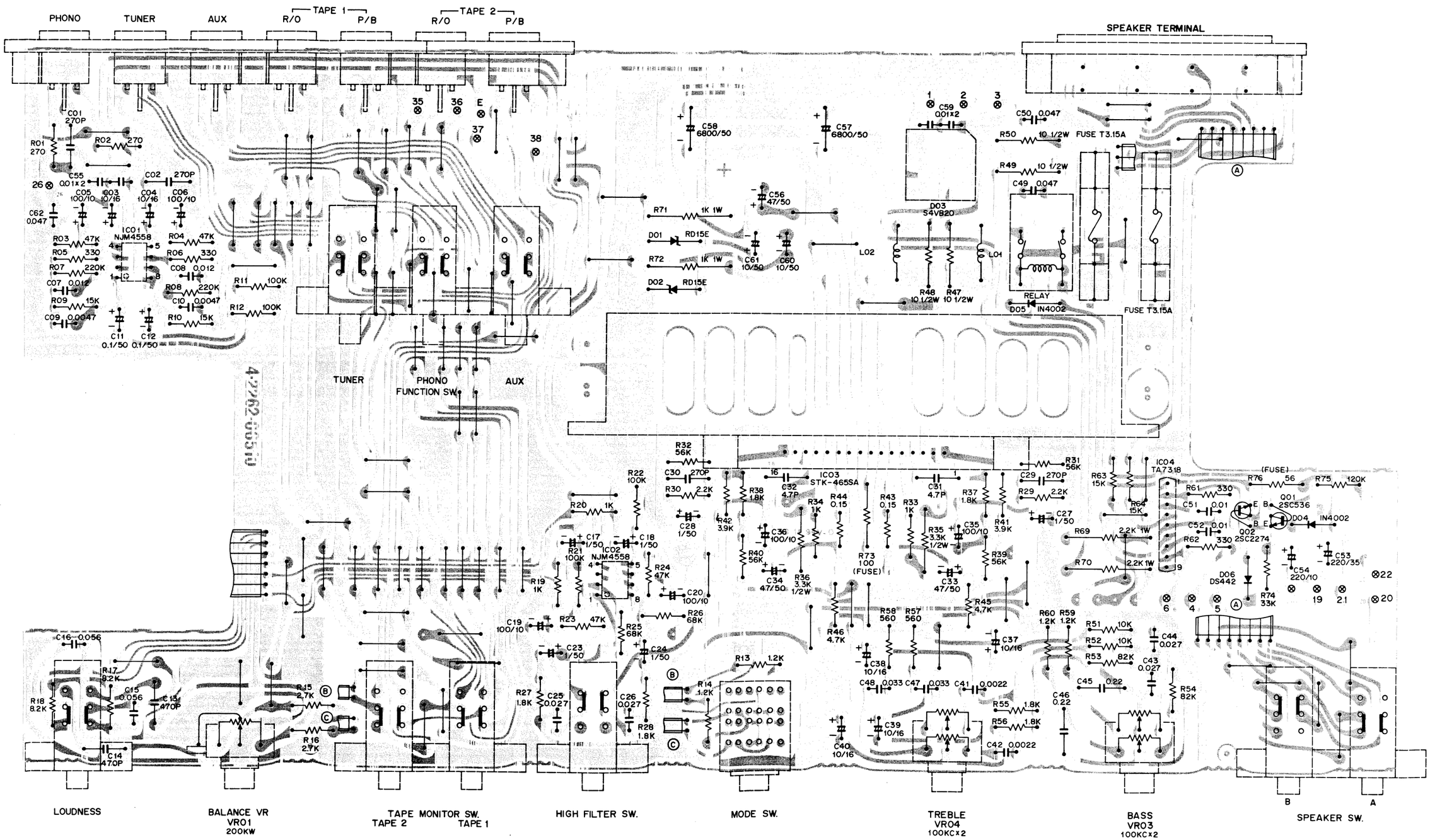


HEADPHONE P.C.BOARD
(BOTTOM VIEW)



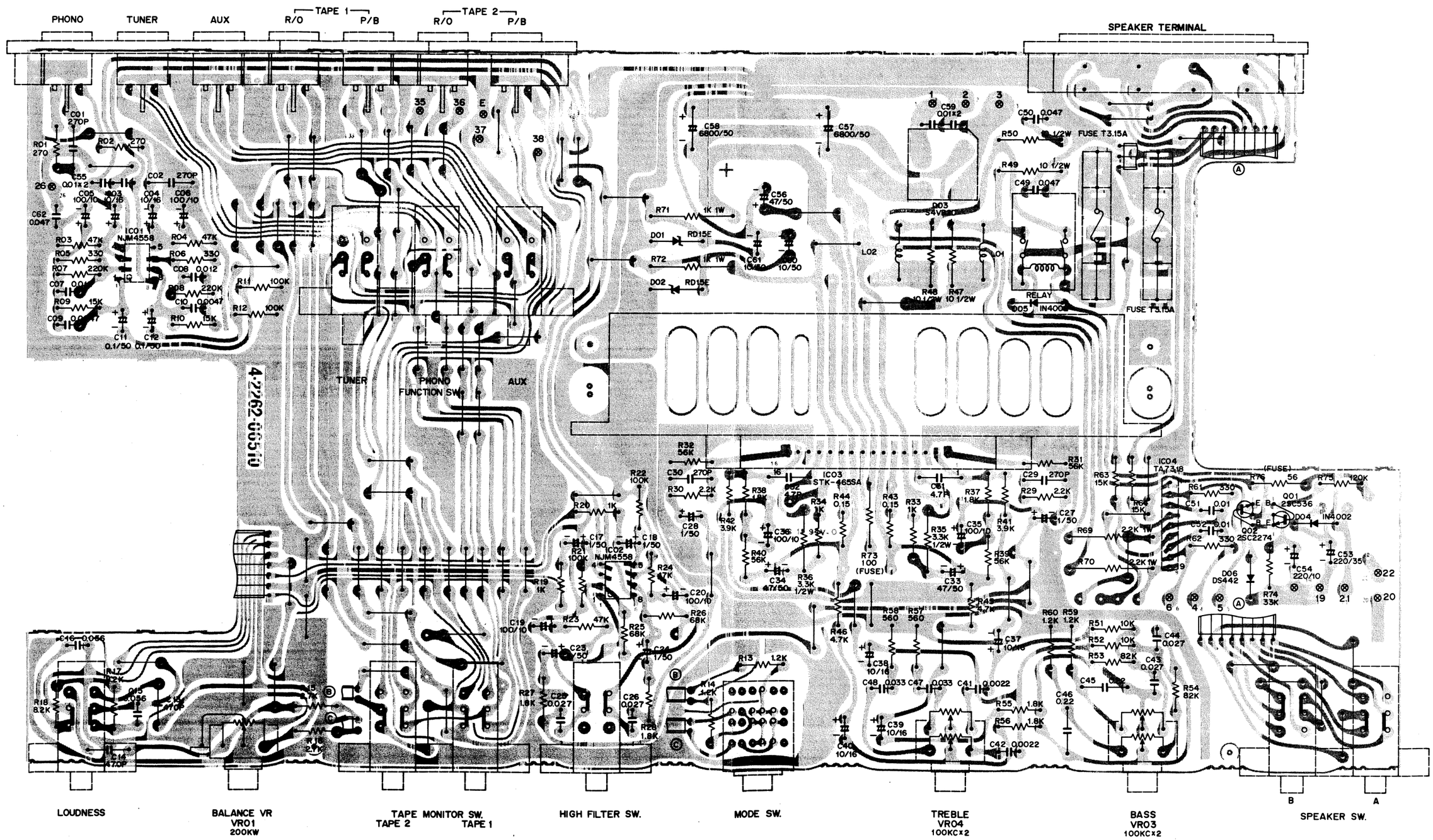
AUDIO FREQUENCY AMPLIFIER P.C.BOARD

(BOTTOM VIEW)

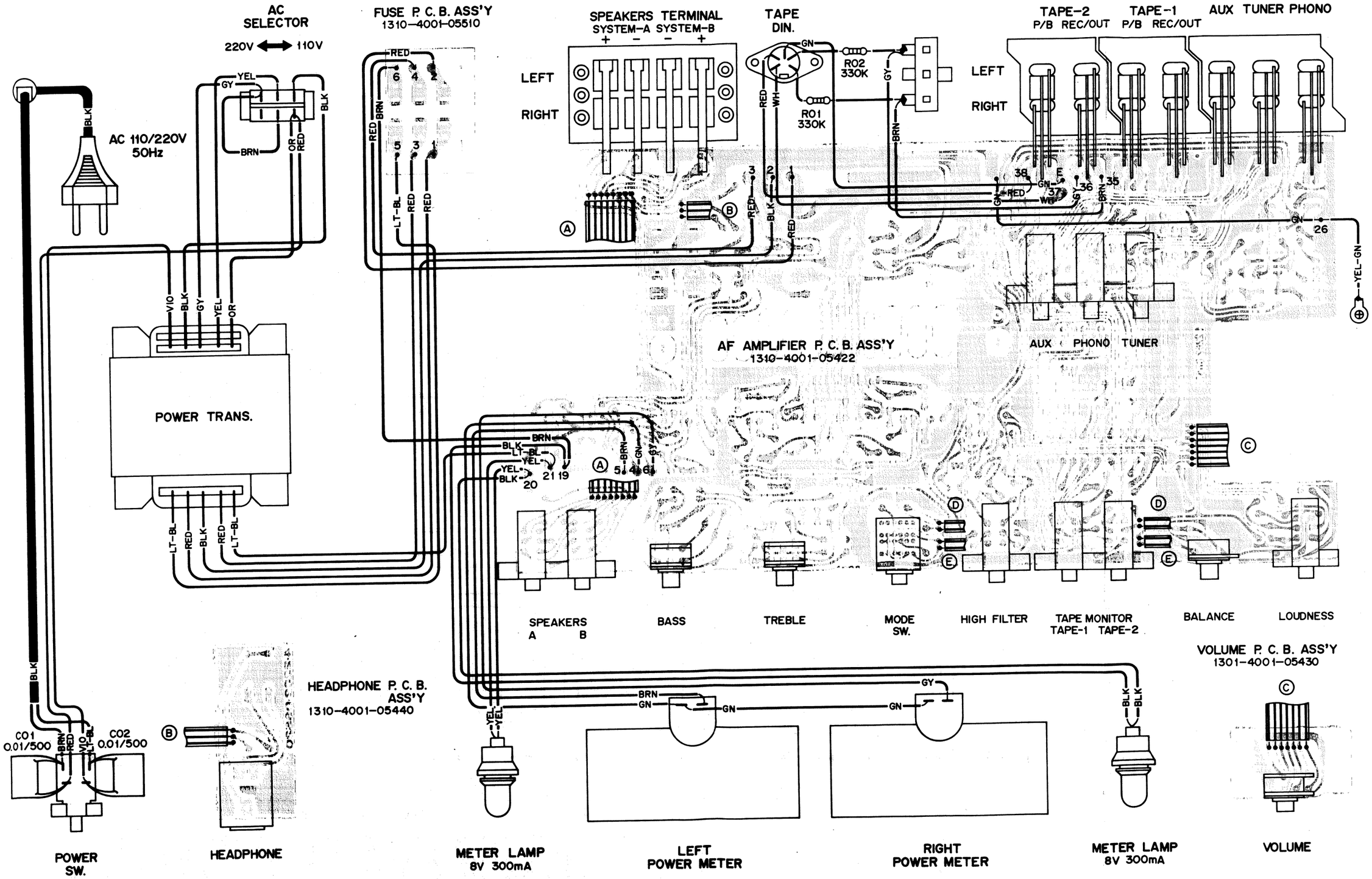


AUDIO FREQUENCY AMPLIFIER P.C.BOARD

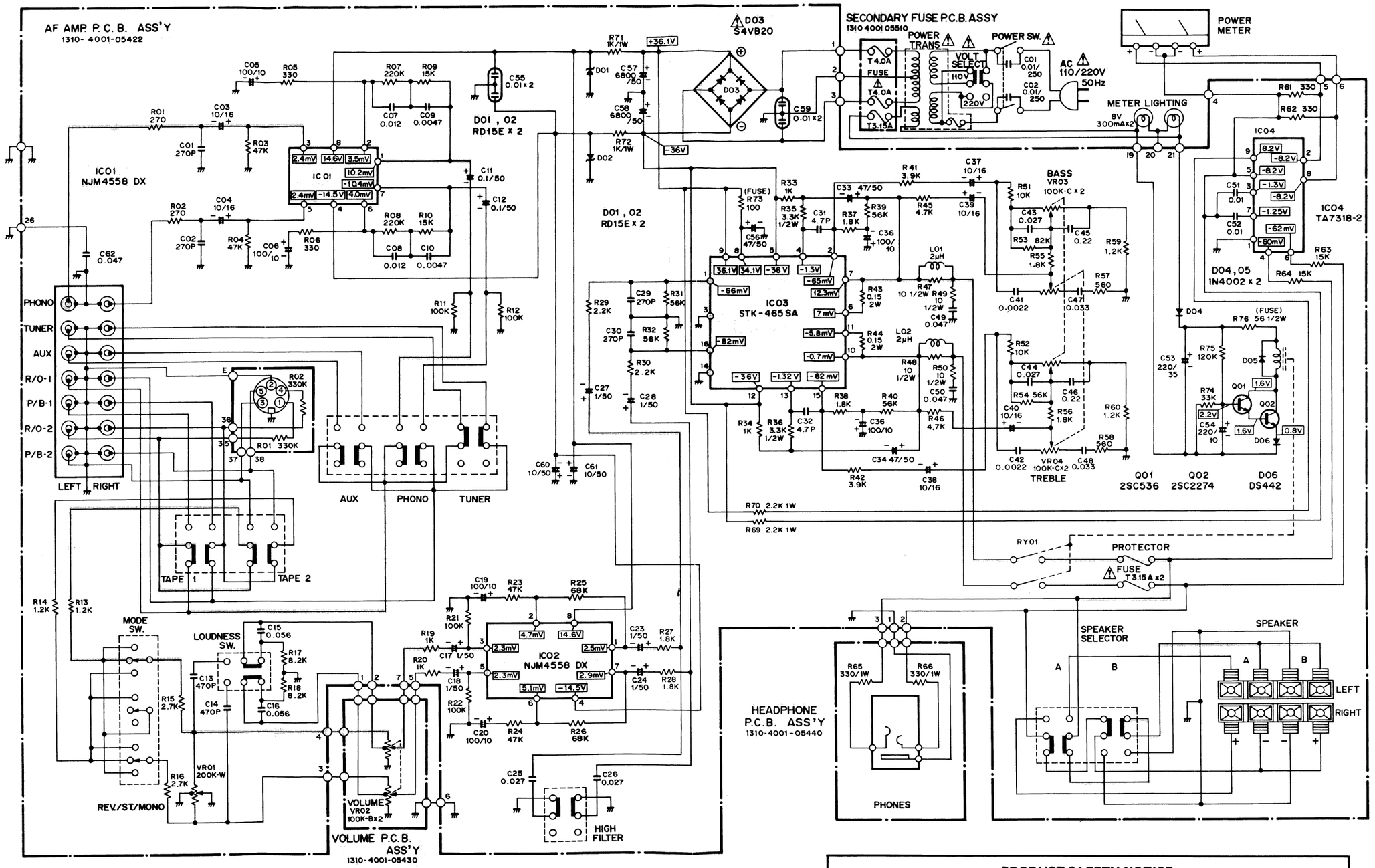
(BOTTOM VIEW)



POINT TO POINT WIRING DIAGRAM



SCHEMATIC DIAGRAM



NOTES:

1. All resistors values are indicated in "ohm" (K=10^3, M=10^6).
2. All capacitors values are indicated in "μF" (P=10^{-12}).
3. All voltages indicated on the schematics are measured under the following conditions.
   a. Use a V.T.V.M.
   b. All voltages ±10% with respect chassis ground
   c. No signals at input terminals
   d. AC input at 220 volts 50 Hz
4. This is a fundamental schematics diagram. Some products may be modified without notice.

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